

Appl. No 10/828,520
Amdt. Dated 08 June 2006
Reply to Office Action of 11 May 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Withdrawn). A method of detecting bacterial endospores comprising:

providing a sample;

providing a marker chemical complexing agent;

providing a laser;

determining if a marker chemical is present in said sample;

if said marker chemical is present, complexing said marker chemical with said marker chemical complexing agent

exposing said sample to said laser; and

detecting the presence of bacterial endospores in said sample.

Claim 2 (Withdrawn). The method according to claim 1, wherein said marker chemical is dipicolinic acid.

Claim 3 (Withdrawn). The method according to claim 1, wherein said marker chemical complexing agent is a terbium containing compound.

Claim 4 (Withdrawn). The method according to claim 1, wherein said marker chemical complexing agent is heated above 30°C.

Claim 5 (Withdrawn). The method according to claim 1, further comprising providing a release agent.

Claim 6 (Withdrawn). The method according to claim 5, wherein said release agent releases substantially all of said marker material from said bacterial endospores.

Claim 7 (Withdrawn). The method according to claim 5, wherein said release agent is dodecylamine.

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Claim 8 (Withdrawn). The method according to claim 5, wherein said release agent is heated above 30°C.

Claim 9 (Withdrawn). The method according to claim 1, wherein said method further comprises detecting less than 100,000 CFU/mL of endospores.

Claim 10 (Withdrawn). The method according to claim 1, wherein said method further comprises detecting less than 10,000 CFU/mL of endospores.

Claim 11 (Withdrawn). The method according to claim 1, wherein said method further comprises detecting less than 5,000 CFU/mL of endospores.

Claim 12 (Withdrawn). The method according to claim 1, wherein said method further comprises detecting less than 1,000 CFU/mL of endospores.

Claim 13 (Withdrawn). The method according to claim 1, wherein said method further comprises detecting less than 500 CFU/mL of endospores.

Claim 14 (Withdrawn). The method according to claim 1, wherein said method further comprises detecting less than 100 CFU/mL of endospores.

Claim 15 (Withdrawn). The method according to claim 1, wherein said method further comprises detecting less than 20 CFU/mL of endospores.

Claim 16 (Withdrawn). The method according to claim 1, wherein said detection of the presence of bacterial endospores occurs in less than 10 minutes.

Claim 17 (Withdrawn). The method according to claim 1, wherein said detection of the presence of bacterial endospores occurs in less than 5 minutes.

Claim 18 (Withdrawn). The method according to claim 1, wherein said detection of the presence of bacterial endospores occurs in less than 3 minutes.

Claim 19 (Withdrawn). The method according to claim 1, wherein said method further includes providing a marker chemical enhancement agent and combining said agent with said sample.

Claim 20 (Withdrawn). The method according to claim 1, wherein said marker chemical enhancement agent is an $AlCl_3$ containing compound.

Claim 21 (Withdrawn). The method according to claim 1, wherein said marker chemical enhancement agent is heated above 30°C.

Claim 22 (Withdrawn). The method according to claim 1, wherein said laser emits light at a wavelength between 260 and 280 nanometers.

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Claim 23 (Withdrawn). The method according to claim 1, further comprising:
agitating said sample.

Claim 24 (Withdrawn). The method according to claim 23, where said agitation includes:
sonic, mechanical and heating.

Claim 25 (Original). A bacterial endospore detection system comprising:
an optical detection device;
wherein said optical detection device further comprises an optical flow cell;
flowpath;
sampler; and
marker chemical complexing agent reservoir.

Claim 26 (Original). The system according to claim 25, wherein said optical detection device includes a sample flow device.

Claim 27 (Original). The system according to claim 25, wherein said optical detection device includes an optical analysis device.

Claim 28 (Original). The system according to claim 25, further comprises a marker chemical enhancement agent reservoir.

Claim 29 (Original). The system according to claim 25, further comprises a release agent reservoir.

Claim 30 (Original). The system according to claim 25, wherein said flowpath includes at least one mixing zone.

Claim 31 (Original). The system according to claim 30, wherein at least one mixing zone is heated.